Call for Papers

TFAWS 2013
Location: Central Florida
Dates: July 29th – August 2nd (Tentative)

Paper Session Topics

The three technical areas of focus for TFAWS 2013 are Passive Thermal Control and Protection, Cryogenic Fluids Systems/Active Thermal, and Aerothermal. An Interdisciplinary session will also be included for those submissions that do not fit in a single category. Session chairs and contact information are listed below, followed by descriptions of each technical area of focus.

Paper Session	Chair	Phone	Send abstracts to
Passive Thermal	Maurice Prendergast (MSFC) Jared Congiardo (KSC)	(256) 544-6497 (321) 867-0820	Maurice.J.Prendergast@nasa.gov Jared.F.Congiardo@nasa.gov
Active Thermal/ Cryogenic Fluids	Ryan Stephan (JSC) Lisa Grob (KSC)	(281) 483-7182 (410) 747-8332	Ryan.A.Stephan@nasa.gov Lisa.Grob@nasa.gov
Aerothermal	Karen Berger (LARC) Robert Kwas (KSC)	(757) 864-2279 (321) 867-2796	Karen.T.Berger@nasa.gov Robert.J.Kwas@nasa.gov
Interdisciplinary	Brandon Marsell (KSC) Bruce Vu (KSC)	(321) 867-3815 (321) 867-2376	Brandon.Marsell@nasa.gov Bruce.T.Vu@nasa.gov

Passive Thermal

- Passive thermal systems & control: design, analysis, build, and test for space and aeronautics
- Spacecraft thermal protection systems, ablative systems, plume impingement, ascent and entry aerothermal heating
- Radiative heat transfer, analytical and experimental approaches
- Studies related to MLI, coatings, thermophysical/optical properties, and surface finishes
- Ground test, manufacturing processes, and simulation
- Plume impingement effects on ground support elements
- Analytical model correlation to existing test or flight data

For more information on passive thermal systems click here.

Active Thermal/Cryogenic Fluids

- Fluids systems and CFD: design, analysis, build, and test for space and aeronautics
- Active thermal systems and control: mechanical pumped fluid loops, heat pipes, methods for achieving variable conductance, thermal/fluid systems components, analysis, and testing
- Cryogenic fluids systems
- Water cooling thermal system at the launch pad
- Analytical model correlation to existing test or flight data

For more information about active thermal/fluids/life support click here.

Aerothermal

- Aerothermodynamics: design, analysis, build, and test for space and aeronautics
- Aeroheating environments: ascent, on-orbit, re-entry
- Plume impingement, on-orbit contamination
- Free molecular heat transfer, analytical and experimental approaches
- Analytical model correlation to existing test or flight data

For more information about aerothermal click here.

Interdisciplinary

- Multi-disciplinary problems: design, analysis, build, and test for space and aeronautics
- Integrated analyses of chemical reactions, electromagnetic interactions, micromechanics, structural motion
- Technology innovations, current and in-development
- Creating environments of inclusion to enable innovation
- Lessons learned
- Various fluid management and modeling techniques as applied to propulsion
- Vibration and acoustics in the launch environment
- Modeling or testing error approximation and verification/validation techniques

We are open to a broad range of topics related to thermal/fluid systems, so please contact us if you are unsure which category you fall under. Note that we prefer papers not be submitted for the purpose of advertising a software or hardware product or a company's features and capabilities. The intent is to present ongoing and accomplished work in support of a program or project. We do not have a separate student paper session, but student papers are highly encouraged.

Abstract and Paper Submission

The abstract submission deadline is ~~**May 3, 2013**~~ ***Extended! May 17, 2013*** and final manuscript submissions are due on **July 1, 2013**. You will be notified via email of the acceptance of your abstract.

Abstracts can be 200-1000 words and should include the following:

- A title and description of the paper or presentation to be submitted
- An indication of what is unique about the work
- An assessment of data, results and conclusions that are available
- A status of the state of the work (concept, development, testing, completed study)

Abstracts must be submitted via email to the appropriate session chairs.

A manuscript template will be provided to authors. Full papers are encouraged but not required to give conference presentations.

Typically, 30 minutes will be allotted for each paper, five of which are devoted to questions from the audience. Longer time blocks may be requested by the author.

Clearance/Copyright

Submitted work must be **unclassified** and approved for public release by the appropriate company and/or government agencies. Please allot time for this authorization process. Government employees are expected to complete Document Availability Authorization (DAA) paperwork. The submission must be original work from the author without any portion of the material infringing on any copyright.

Presenters will be required to fill out a "Presentation Clearance & Permission to Publish" form prior to their presentation. The form may be completed prior to TFAWS or upon arrival.

For a printable version of this call for papers announcement click here.

Questions?

Questions related to paper sessions, please email Bruce Vu or 321-867-2376.

Questions related to vendor presentations, please email Brandon Marshell or 321-867-3815, or Mark Terrone or 321-861-7865.